(54) Title: RESOURCE ALLOCATION TECHNIQUES
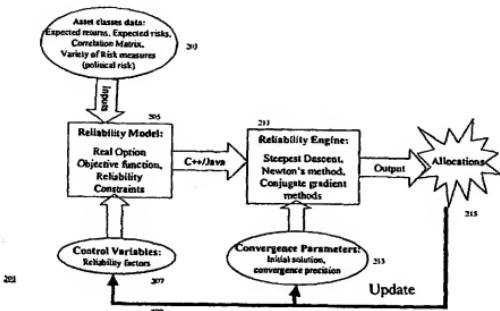
(57) Abstract: Resource allocation techniques for determining an allocation of investment funds among a set of at least two asset classes for a period of time which maximizes return on the investment funds over the period of time. In one aspect of the techniques, the return on the investment funds is determined using real options. In another aspect of the techniques, reliability of return is used to quantify the effects of the diversification resulting from the use of different classes of assets (203). The reliability of return is then used as a constraint on the maximization of the return. The reliability of return is determined (205) by establishing correlations between the asset classes with regard to risk, using the correlations with the standard deviations for the asset classes to determine covariances between the asset classes, and using the covariances to determine the standard deviation for the risk for the entire set. The standard deviation is then used together with the return to determine the reliability of the return (211).